

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1, 2, 4 and 5 are pending in the application, with claim 1 being the independent claim. Claim 3 is sought to be cancelled without prejudice to or disclaimer of the subject matter therein. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Office reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 101

Claim 3 has been rejected under 35 U.S.C. § 101 as being allegedly improper. In view of the cancellation of claim 3, this rejection has been rendered moot and its withdrawal is respectfully requested.

Rejections under 35 U.S.C. § 112

Claim 3 has been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. In view of the cancellation of claim 3, this rejection has been rendered moot and its withdrawal is respectfully requested.

Rejections under 35 U.S.C. § 103

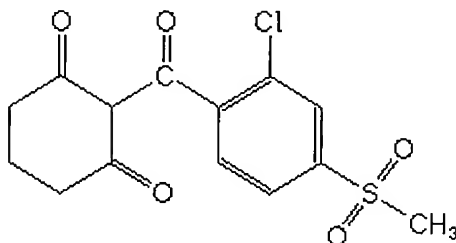
The rejection of claims 1-5 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Appl. No. 2005/0003963 to Feucht *et al.* ("Feucht") in view of U.S. Appl. No. 2003/0078167 to Ziemer *et al.* ("Ziemer") is respectfully traversed. In

view of the cancellation of claim 3, the rejection as it pertains to claim 3 is rendered moot.

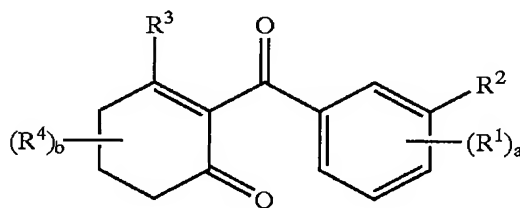
The Office alleged that Feucht teaches herbicidal compositions comprising compounds of formula (I). Office Action, p. 5, ll. 6-7. The Office conceded that Feucht does not teach the specific compounds listed in (b) of present claim 1, but alleged that such compounds are taught by Ziemer. *Id.* at p. 5, ll. 14-18. The Office further alleged that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Feucht and Ziemer to utilize the compounds listed in (b) of present claim 1, with the compounds of formula (I). *Id.* at p. 6, ll. 1-10.

A. The Office has not provided a reason to combine the cited references to arrive at the claimed compositions.

The present claims recite compositions comprising compounds of formula (I) and several compounds known as 4-HPPD inhibitors, listed in (b) of present claim 1. Application as Filed, p. 9, claim 1. Feucht teaches compositions comprising compounds of formula (I) and sulcotrione. Feucht, p. 5, ¶[0016]. Sulcotrione has the following chemical structure:



Ziemer teaches compositions comprising safeners and benzoylcyclohexanediones, represented by the following formula:



Ziemer, col. 27, ll. 5-60. The benzoylcyclohexanediones taught by Ziemer are substituted at the R² position. *Id.* at col. 24, Table 1. Sulcotrione lacks substitution at the R² position, thus, the compounds taught by Ziemer are structurally different than sulcotrione, disclosed in Feucht.

The Court of Appeals for the Federal Circuit in *Yamanouchi Pharm., Co. v. Danbury Pharm., Inc.*, held, "[f]or a chemical compound, a prima facie case of obviousness requires 'structural similarity between claimed matter and prior art subject matter ... where the prior art gives no reason or motivation to make the claimed compositions.'" *Yamanouchi*, 231 F.3d 1339, 1343 (Fed. Cir. 2000); *quoting In re Dillon*, 919 F.2d 688, 692 (Fed. Cir. 1990) (*en banc*). In *Yamanouchi*, the Court held it would not be *prima facie* obvious to select and combine compounds from two pieces of prior art to arrive at the claimed compound, when one of ordinary skill in the art would not have found motivation to make such a combination. *See id.* at 1344-45.

Just as in *Yamanouchi*, the presently cited references do not offer or suggest any rationale to combine compounds of formula (I) with the claimed compounds. As stated *supra*, the Office conceded that Feucht does not teach the compounds listed in (b) of claim 1. However, Feucht teaches combining compounds of formula (I) with hundreds of different compounds, one of which is sulcotrione. Feucht, p. 5, ¶[0016]. Feucht teaches several examples where combinations comprising compounds other than

sulcotrione achieve superior herbicidal activity compared to combinations comprising sulcotrione. *See* Feucht, p. 16 Table A-1 through p. 29, Table 1-1-104. Thus, one of ordinary skill in the art would not have been motivated to select sulcotrione as a preferred compound to combine with compounds of formula (I). In *Yamanouchi*, the court found that compounds having higher activity than the asserted lead compound would have been a more obvious choice than the asserted lead compound. *Yamanouchi* at 1345. Similarly, compounds having greater activity were present in Feucht, making those compounds obvious choices, not sulcotrione.

Zierner does not cure the deficiency of Feucht. Zierner does not teach compounds of formula (I) or combinations of compounds of formula (I) and other compounds. Applicants respectfully submit that a selection of sulcotrione as a preferred compound in view of Zierner would amount to impermissible hindsight.

Accordingly, neither Feucht nor Zierner provide a rationale to combine compounds of formula (I) with the claimed compounds. One of ordinary skill in the art would not have looked to the teachings of Feucht and Zierner to arrive at the presently claimed compositions. Thus, the present invention is not *prima facie* obvious over Feucht in view of Zierner. For at least the above reasons, Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) be withdrawn.

B. The claimed combinations achieve synergism and unexpected herbicidal activity.

Even assuming *arguendo* that claims 1-5 are *prima facie* obvious in view of the cited references, which they are not, Applicants respectfully submit the attached Declaration under 37 C.F.R. § 1.132 executed by Dr. Erwin Hacker (Declaration), an

expert in the field of herbicides. Table 1 of the Declaration (reproduced below) demonstrates the unexpected synergism achieved when combining compounds of formula (I) with herbicidal compounds listed in (b) of present claim 1.

Compound	Application Rate (g a.i./ha)	<i>Alopercurus myosuroides</i> control in %	Theoretical Synergistic Efficacy
I-2	5	55	
B.3	25	25	
I-2 + B.3	5 + 25	93 (⇔ synergism)	80
Sulcotrione	25	15	
I-2 + Sulcotrione	25 + 5	65 (⇔ antagonism)	70

Table 1, Declaration executed by Dr. Erwin Hacker, p. 2. In addition to the data contained in the Declaration, Tables A-1 through A-9 of the present specification recite compositions comprising a combination of compounds of formula (I) and the compounds listed in (b) of present claim 1, which exhibit higher herbicidal activity than when these compounds are used alone. Application as Filed, p. 8, ¶[0084] through p. 9, ¶[0094]. Furthermore, the herbicidal activity of the active ingredient combinations of the present invention is higher than the sum of the actions of the individual active ingredients, achieving a synergistic effect, and not merely an additive effect. *Id.* at p. 5, ¶[0040]-¶[0041].

As discussed *supra*, the Office stated that Feucht discloses sulcotrione in combination with compounds of formula (I). Office Action, p. 5, ll. 14-15. The Office further conceded that Feucht does not teach compounds listed in (b) of present claim 1.

Id. at ll. 14-18. As shown in Table 1 *supra*, combinations of sulcotrione and compounds of formula (I) demonstrate *antagonistic* effects. The compounds in the present claims exhibit superior results over combinations containing sulcotrione. Thus, combinations comprising the claimed compounds are preferred over combinations comprising sulcotrione.

Applicants respectfully submit that the synergistic effect achieved by the present invention is not taught by either Feucht or Ziemer. Furthermore, the results demonstrated in Table 1 *supra* and Tables A-1 through A-9 of the present specification would not have been expected or suggested by the cited references. Accordingly, for at least the above reasons, combinations of compounds of formula (I) with compounds listed in (b) of present claim 1 are not *prima facie* obvious over Feucht in view of Ziemer, and Applicants respectfully request that the rejections under 35 U.S.C. § 103(a) be withdrawn.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Office reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Office believes, for any reason, that personal communication will expedite prosecution of this application, the Office is invited to telephone the undersigned at the number provided.

Amdt. dated April 28, 2009 - 16 -
Reply to Office Action of October 28, 2008

DOLLINGER *et al.*
Appl. No. 10/591,674

Prompt and favorable consideration of this Amendment and Reply is respectfully
requested.

Respectfully submitted,

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